NATIONAL MARINE FISHERIES SERVICE INSTRUCTION 34-102-01 ***AUGUST 6, 2004***
Facilities and Equipment ***Radio Frequency Management***
PROCEDURES TO REQUEST NEW RADIO FREQUENCY ASSIGNMENTS
NOTICE: This publication is available at: http://www.nmfs.noaa.gov/directives/.
OPR: F/MB (J. Bortniak) **Certified by:** F/MB (G. Reisner) **Type of Issuance:** Renewal (02/06)
SUMMARY OF REVISIONS: Updated procedures. Signed _____ [Approving Authority name] Date [Approving Authority title]

1. Introduction. This Procedural Directive provides specific guidance for the submission of requests for new radio frequency assignments. These procedures direct the Radio Frequency Assignment Field Contacts in all steps necessary to submit requests to the NMFS Radio Frequency Coordinator. Detailed procedures are provided on the NMFS Intranet http://home.nmfs.noaa.gov/mb/radio/radio.htm and also as attachments to this directive.

attachments (2)

NOAA Fisheries Intranet

National Marine Fisheries Service (NMFS)

Radio Frequency Management

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Procedures to Request New Radio Frequency Assignments

Authorization Required

Almost all usage of radio equipment by government agencies must be authorized through a federal process which replaces the FCC licensing process. If you need to transmit signals on radio frequency for your operations or projects, you must work through the process outlined here.

Fisheries Coordinator

Within NMFS, radio frequency assignment is coordinated by John Bortniak in F/MB3 in Silver Spring, Maryland. (301) 713-2252 ext 168. The coordinator is the liaison between you and the the NOAA Office of Radio Frequency Management (ORFM) and the National Telecommunications and Information Administration (NTIA.)

For NOAA (and all of DOC), ORFM in Silver Spring coordinates assignment requests with the NTIA. The various line office coordinators work directly with ORFM on your behalf.

Background: The Federal Process

For commercial applications, the Federal Communications Commission (FCC) coordinates the authorization for use of the radio spectrum.

For the Federal Government, the President of the United States is authorized to allocate radio spectrum. In practice, the President has designated the U.S. Department of Commerce to perform this function on his behalf, allocating spectrum to the various segments of the federal government and authorizing individual agencies to use specific frequencies. The agency that handles this is the NTIA, which coordinates with the Interdepartment Radio Advisory Committee (IRAC), the FCC, and other nations to ensure efficient use of the spectrum and to minimize interference.

Each NOAA line office and each DOC component organization has a designated liaison through which operational units within DOC request frequency assignments. Each liaison forwards the request for frequency assignments to ORFM for completion and submission to NTIA. Proposals for frequency assignments are submitted electronically by the Radio Coordinator to ORFM for review and submission to the NTIA. Each member agency on the Frequency Assignment Subcommittee (FAS) reviews each proposal along with the NTIA action officer assigned to that proposal. Each proposal is reviewed for conformance with the NTIA Manual of Regulations and Procedures for Federal Radio Frequency Management. This process takes 14 working days.

Upon approval of a frequency assignment by the FAS, NTIA issues a radio

frequency authorization for that assignment and the assignment is recorded in the NTIA Government Master File (GMF) of Frequency Assignments.

NMFS Procedure

1. Determine the need for a government radio frequency authorization.

   If a contractor will handle all aspects of operating the radio frequency transmission for you, then the contractor should obtain an authorization through the FCC as a commercial entity. For example, if we contract with someone to radio tag whales and relay the data to us, then they are responsible for the radio transmissions.

   Whenever NMFS is the owner and/or operator of any radio equipment (we are transmitting) then we are required to obtain the authorization. However, the process runs through the NTIA, not through the FCC. Equipment transmitting at frequencies above 3000 GHz and use of non-licensed devices conforming to Part 15 of the FCC Rules and Regulations (47 CFR 15) do not need to be authorized through this process.

2. Determine if this will be a permanent requirement (no forseen end to the need) or a temporary assignment (definite time limitation of need - a few months up to 5 years.) The key is that temporary assignments have planned dates of termination built into the assignment authorization.

3. Call the NMFS Radio Frequency Coordinator, or send an email to discuss your intended use of radio spectrum. If you have an emergency need, advise the coordinator immediately.

4. Fill in the Radio Frequency Authorization Request form with as much information as you can obtain. The database requires very specific data in the required fields before it will pass compliance checks, and the request can then be forwarded for approval. It will probably take several communications back and forth to get all required technical data into the system properly.

5. Once the authorization is granted by NTIA a certificate of authorization can be printed by the NMFS Coordinator and sent to you.

6. When the radio frequency is no longer needed, notify the NMFS Coordinator so the authorization can be terminated.

Classified Data

As a reminder, if any of your correspondence relates to classified radio frequency authorizations, please follow proper procedures. (i.e., do not email the data or send in inter-office envelopes. U.S. Mail is approved) Consult the NOAA Security Procedures Training web site if uncertain on proper procedure.

Timeframe for Approval Process

The line office (NOAA Fisheries) coordinator must first enter the assignment request into the SPECTRUM XXI database and then run numerous compliance checks. This often results in the need for additional coordination with the end-user, and even online research to obtain technical specifications from manufacturers or other information. It might take up to a

month to get all required data into the proper format. Once the database compliance module produces no error flags, the request is sent to ORFM to review and check for potential interference with any other stations or other problems. ORFM then forwards the request to NTIA. The ORFM process may take a week for review. The actual process of review at the FAS takes 14 working days. If the request is "tabled" by NTIA, additional information may be needed or alternate options may need to be taken. Once additional the information is supplied and a modification is generated, another 14 working day period begins.

Although some requests could go through the system much faster, the process should begin at least 2 months ahead of your need to the begin using radio frequency. Again, notify the coordinator immediately if you have an emergency need.

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NMFS Radio Frequency Authorization Request

You must submit a separate application for each transmitter site where you will locate a permanent FIXED transmitter antenna.

Data Field and Description	Your Data
PURPOSE - Give a brief description of the purpose of the intended station (tracking of whales, communications with observers) and describe the layout of the overall system, especially if consisting of multiple components (will send video transmission from beach through mountain relay station then down to laboratory, or will attach satellite transmitter to sharks)	
FISHERIES CONTACTS - Provide names and contact info for: The Lab, field office, etc. that will use the system. Person requesting the authorization. Persons involved who can answer technical questions. Contractors supporting the project.	
PERMANENT or TEMPORARY (temp not to exceed 5 years) If Temporary, give planned expiration date. Is this a long term need or a one year experiment?	
FIXED or MOBILE - Ships, autos, small boats, and handheld units are mobile and do not need latitude / longitude positions	
FRQ - Frequency(ies) (with label indicating KHz, MHz, GHz, THz). If you will transmit on several frequencies all from the one transmitter, list them all here. If duplex mode (transmit on one freq/receive on another) give freqs as pairs indicating Tx and Rx. For newer technologies such as spread spectrum, frequency hopping, etc., provide the range of frequencies used.	
EMS - The Emissions field needs several things: Bandwidth. Type of Modulation - AM, FM, Single Sideband, etc. Nature of signal - analog voice, digital data, etc.	
PWR - Transmitter output power in watts or kilowatts.	
XSC - Transmitter State and Country. If mobile, give operating area: Atlantic, Pacific, lower 48, U.S. and possessions, Alaska, etc.	

XLA , XLG - Transmitter antenna latitude and longitude degrees, minutes, seconds. Not applicable for ships and mobile stations.	
RLA, RLG - Receiver antenna latitude and longitude degrees, minutes, seconds. If you are transmitting to mobile stations, or to one or more stations not under your control, (i.e., ships, Coast Guard) leave blank.	
XAP - Transmitter antenna polarization: horizontal, vertical, linear, etc. (not required for mobile stations).	
RAP - Receiver antenna polarization: horizontal, vertical, linear, etc. (not required for mobile stations).	
XAZ - For directional FIXED transmitter antennas, supply the antenna Azimuth from true north. If you are supplying coordinates for the receiving station, the software in HQ will do this automatically.	
RAZ - For directional FIXED receiver antennas, supply the antenna Azimuth from true north. If you are supplying coordinates for the transmitting station, the software will do this automatically.	
XCL - Call sign. If you have one already assigned for that transmitter, please provide it here.	
XAD - Transmitting antenna dimensions for FIXED stations. Ground height above sea level in feet or meters. Antenna base height above ground in feet or meters. Type of antenna (parabolic, whip, longwire, yagi, etc.). Antenna gain in dB.	
RAD - Receiving antenna dimensions for FIXED stations. Ground height above sea level in feet or meters Antenna base height above ground in feet or meters Type of antenna (parabolic, whip, yagi, etc.) Antenna gain in dB	
RADIO EQUIPMENT - for transmitter, and receiver if applicable, supply make, model, part number, commercial equipment code, or government equipment code nomenclature.	

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